Amendments to the Claims

Claims 1-9. (Cancelled)

- 10. (New) A rotary friction welding machine for joining or connecting components, with a first rotating spindle and a second non-rotating spindle, wherein a first component of the components being connected to one another is positioned on the first spindle and a second component of the components being connected to one another is positioned on the second spindle, wherein several flywheel mass bodies are positioned on the rotary friction welding machine, wherein the flywheel mass bodies cooperate with the first rotating spindle such that at least one of the flywheel mass bodies can be brought out of operating engagement or into operating engagement with the first rotating spindle, and wherein flywheel mass bodies that are in operating engagement with the first rotating spindle and flywheel mass bodies that are out of operating engagement with the first rotating spindle are positioned on the rotary friction welding machine.
- 11. (New) The rotary friction welding machine according to Claim 10, wherein the several flywheel mass bodies are allocated to the first rotating spindle such that the flywheel mass bodies when in operating engagement with the first spindle rotate jointly with the spindle and when out of operating engagement with the first spindle are stationary as compared with the spindle.
- 12. (New) The rotary friction welding machine according to Claim 10, wherein at least one of the flywheel mass bodies is rigidly connected to the first rotating spindle, while the other flywheel mass bodies are rotatably mounted on the spindle in such a way that the other flywheel mass bodies are selectively coupleable to and uncoupleable from every flywheel mass body that is rigidly connected to the first spindle.
- 13. (New) The rotary friction welding machine according to Claim 10, wherein the several flywheel mass bodies are allocated to a flywheel mass shaft, wherein

the flywheel mass shaft is coupled to the first rotating spindle via a transmission gear.

- 14. (New) The rotary friction welding machine according to Claim 13, wherein the flywheel mass bodies in operating engagement with the first spindle rotate jointly with the flywheel mass shaft and when out of operating engagement with the first spindle are stationary as compared with the flywheel mass shaft.
- 15. (New) The rotary friction welding machine according to Claim 13, wherein at least one of the flywheel mass bodies is rigidly connected to the flywheel mass shaft, while every other flywheel mass body is rotatably mounted on the flywheel mass shaft in such a way that the other flywheel mass bodies are selectively coupleable to and uncoupleable from the flywheel mass body that is rigidly connected to the flywheel mass shaft.
- 16. (New) The rotary friction welding machine according to Claim 10, wherein the flywheel mass bodies are moveable back and forth between two magazine halves such that the flywheel mass bodies are in operating engagement with the first spindle in a position that is inserted into a first magazine half and out of operating engagement with the first spindle in a position that is inserted into a second magazine half.
- 17. (New) The rotary friction welding machine according to Claim 16, wherein the first magazine half is rigidly connected to the first spindle and the second magazine half is rotatable as compared with the first spindle.
- 18. (New) The rotary friction welding machine according to Claim 16, wherein the two magazine halves are embodied as a revolver magazine, wherein the two magazine halves have recesses to accommodate the flywheel mass bodies.
- 19. (New) An apparatus for rotary friction welding, comprising:
 - a rotary friction welding machine, including:
 - a first rotatable spindle;
 - a second non-rotatable spindle; and

a plurality of flywheel mass bodies;

wherein the plurality of flywheel mass bodies are positioned on the rotary friction welding machine, and wherein at least one of the plurality of flywheel mass bodies is operatively engageable and dis-engageable with the first rotatable spindle.

- 20. (New) The apparatus according to Claim 19, wherein when the at least one of the plurality of flywheel mass bodies is operatively engaged with the first rotatable spindle the at least one of the plurality of flywheel mass bodies is rotatable jointly with the first rotatable spindle and wherein when the at least one of the plurality of flywheel mass bodies is operatively dis-engaged with the first rotatable spindle the at least one of the plurality of flywheel mass bodies is not jointly rotatable with the first rotatable spindle.
- 21. (New) The apparatus according to Claim 19, wherein at least one of the flywheel mass bodies is rigidly connected to the first rotatable spindle, and wherein the at least one of the plurality of flywheel mass bodies that is operatively engageable and dis-engageable with the first rotatable spindle is selectively coupleable to and uncoupleable from the at least one of the flywheel mass bodies that is rigidly connected to the first rotatable spindle.
- 22. (New) The apparatus according to Claim 19, wherein the plurality of flywheel mass bodies are disposed on a flywheel mass shaft, and wherein the flywheel mass shaft is coupled to the first rotatable spindle by a transmission gear.
- 23. (New) The apparatus according to Claim 22, wherein when the at least one of the plurality of flywheel mass bodies is operatively engaged with the first rotatable spindle the at least one of the plurality of flywheel mass bodies is rotatable jointly with the flywheel mass shaft and wherein when the at least one of the plurality of flywheel mass bodies is operatively dis-engaged with the first rotatable spindle the at least one of the plurality of flywheel mass bodies is not rotatable with the flywheel mass shaft.

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- 24. (New) The apparatus according to Claim 22, wherein at least one of the flywheel mass bodies is rigidly connected to the flywheel mass shaft, and wherein the at least one of the plurality of flywheel mass bodies that is operatively engageable and dis-engageable with the first rotatable spindle is selectively coupleable to and uncoupleable from the at least one of the flywheel mass bodies that is rigidly connected to the flywheel mass shaft.
- 25. (New) The apparatus according to Claim 19, wherein the plurality of flywheel mass bodies are moveable between a first and a second magazine half, and wherein when the at least one of the flywheel mass bodies is operatively engaged with the first rotatable spindle the at least one of the flywheel mass bodies is inserted into the first magazine half, and wherein when the at least one of the flywheel mass bodies is operatively dis-engaged with the first rotatable spindle the at least one of the flywheel mass bodies is inserted into the second magazine half.
- 26. (New) The apparatus according to Claim 25, wherein the first magazine half is rigidly connected to the first rotatable spindle and the second magazine half is rotatable with respect to the first rotatable spindle.
- 27. (New) A method for rotary friction welding components, comprising the steps of:

positioning a first component on a first rotatable spindle of a rotary friction welding machine;

positioning a second component on a second non-rotating spindle of the rotary friction welding machine;

operatively engaging at least one of a plurality of flywheel mass bodies positioned on the rotary friction welding machine with the first rotatable spindle;

engaging the first component with the second component; and rotating the first rotatable spindle with the at least one of the plurality of flywheel mass bodies engaged with the first rotatable spindle, wherein a remaining number of the plurality of flywheel mass bodies positioned on the rotary friction welding machine are not engaged with the first rotatable spindle.

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28. (New) The method according to Claim 27, further comprising the steps of: removing the first component from the first rotatable spindle of the rotary friction welding machine;

removing the second component from the second non-rotating spindle of the rotary friction welding machine;

operatively dis-engaging the at least one of the plurality of flywheel mass bodies positioned on the rotary friction welding machine from the first rotatable spindle;

positioning a third component on the first rotatable spindle of the rotary friction welding machine;

positioning a fourth component on the second non-rotating spindle of the rotary friction welding machine;

operatively engaging at least a second one of the plurality of flywheel mass bodies positioned on the rotary friction welding machine with the first rotatable spindle;

engaging the third component with the fourth component; and rotating the first rotatable spindle with the at least second one of the plurality of flywheel mass bodies engaged with the first rotatable spindle, wherein the remaining number of the plurality of flywheel mass bodies positioned on the rotary friction welding machine are not engaged with the first rotatable spindle.